

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

REMARKS/ARGUMENTS

Claims 1-11, 14-18, 20-31 and 34-40 are in the present application, of which claims 1, 21, 37 and 40 are independent. Claims 1-11, 18, 21, 24-25 and 27-31 have been amended. Claims 12-13, 19 and 32-33 have been canceled without prejudice. New claims 37-40 have been added. Applicants respectfully request reconsideration and allowance of claims 1-11, 14-18, 20-31 and 34-36. Applicants further respectfully request consideration on the merit and allowance of newly added claims 37-40.

Claims 8-11, 28, 29 and 31 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. As applicants have amended these claims for clarification/correction as required by the Examiner, applicants request that the rejection of claims 8-11, 28, 29 and 31 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claims 1-6, 8-10, 18-19, 21-26 and 28-30 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,042,235 ("Machtig et al."). In addition, claims 7, 11-13, 27 and 31-33 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Machtig et al. in view of U.S. Patent No. 6,247,815 ("Inova"). Further, claims 14 and 34 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Machtig et al. in view of U.S. Patent No. 6,222,593 B1 ("Higurashi et al."). Further, claims 15-17 and 35-36 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Machtig et al. in view of U.S. Patent

Appln No. 09/880,516

Amdt date March 29, 2004

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No. 5,028,994 ("Miyakawa et al."). Finally, claim 20 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Machtig et al. in view of U.S. Patent No. 5,771,072 ("Tokoro et al."). As claims 12-13, 19 and 32-33 are canceled herein, the rejection of these claims are now moot.

The Office Action states that "Machtig et al. disclose a method and apparatus for an integrated display system for producing a composite image comprising a first display (120), a second display (150), a third transmissive/reflective mirror (106) and a third display (112) which all function as claimed (figure 14). Note, Machtig et al disclose various types of embodiments with different number of displays located in different locations facing different directions to produce a composite image (for example see figures 3-42)."

Applicants submit, however, that Machtig et al. does not anticipate claim 1 or any of claims 2-6, 8-10, 18-19, 21-26 and 28-30 because it does not teach that "the first image partially overlaps with the second image to form the composite image which is larger than either one of the first and second images because a portion of the first and second images is not overlapped in the composite image, and wherein the first image is edge blended with the second image so that the composite image appears as an apparently seamless image." (Emphasis Added)

Machtig et al. teaches instead that the multiple images are stacked one on top of each other to create a pseudo 3-D appearance. In other words, Machtig et al. teaches "coincidence imaging" in which the images are spatially coincident (i.e., occupying the same position in space). Hence, claim 1 of the

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

present application directed to forming a composite image which is larger than either one of the first and second images that make up the composite image is clearly not anticipated by Machtig et al.

Further, claim 1 has been amended to recite that "the first image is edge blended with the second image so that the composite image appears as an apparently seamless image." As Machtig et al. does not disclose edge blending, claim 1 is further patentably distinguishable over Machtig et al. In rejecting claims 7, 11-13, 27 and 31-33, the Office Action states "Inova disclose a method and an apparatus for an integrated display system for producing a composite image comprising a plurality of image projector displays (figure 1) for projecting a plurality of overlapped images wherein the image display projectors may be positioned at an angle with respect to one another," and combines the teachings of Machtig et al. and Inova for the rejection.

Applicants submit that Machtig et al. should not be combined with Inova to reject the claims of the present application because Machtig et al. teaches away from the present invention. Machtig et al. teaches a video conferencing system that provides a background image that appears to observers to have 3-D depth. As can be seen in FIG. 14, the background image display 120, the first spatial object display 100 and the second spatial object display 112 appear to be stacked one on top of each other to provide an illusion of 3-D depth when viewed.

Further, Machtig et al. in FIGs. 28-35 illustrate using an optical axis 238 to permit an eye contact image of the first

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

conferee 242 to be captured by the video camera 250, thereby emphasizing the optical alignment of the images and the video camera in Machtig et al. Also, column 18, lines 29-31 of Machtig et al. recites "[a]n important aspect of the present invention is to provide a background image that appears behind the spatial imaged second conferee 240." (Emphasis Added) Such teachings regarding alignment of the images/video camera about the optical axis and the placement of the background image behind another image further teach away from forming the composite image which is larger than either one of the first and second images.

Claim 1 recites, in a relevant portion, "[a]n integrated display system . . . wherein a first image from the first display at least partially passes through the mirror face towards the user, and a second image from the second display is at least partially reflected by the mirror face towards the user, so as to present a composite image comprising the first image and the second image to the user, wherein the first image partially overlaps with the second image to form the composite image which is larger than either one of the first and second images because a portion of the first and second images is not overlapped in the composite image, and wherein the first image is edge blended with the second image so that the composite image appears as an apparently seamless image." (Emphasis Added)

Since Machtig et al. does not teach such an integrated display system, applicants request that the rejection of claim 1 be withdrawn. Since none of the cited references, either individually or together in any combination, teaches or suggests

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

such an integrated display system, applicants request that claim 1 be allowed.

Since claims 2-11, 14-18 and 20 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-11, 14-18 and 20 be withdrawn and that they be allowed.

Claim 21 recites, in a relevant portion, that "[a] method . . . projecting a first image towards a user through the transmissive/reflective mirror; and applying a second image at the transmissive/ reflective mirror for the second image to be reflected towards the user, wherein the images appear as a composite image to the user, wherein the first image partially overlaps with the second image to form the composite image which is larger than either one of the first and second images because a portion of the first and second images is not overlapped in the composite image, and wherein the first image is edge blended with the second image so that the composite image appears as an apparently seamless image." (Emphasis Added)

Since Machtig et al. does not teach such a method, applicants request that the rejection of claim 21 be withdrawn. Since none of the cited references, either individually or together in any combination, teaches or suggests such a method, applicants request that claim 21 be allowed.

Since claims 22-31 and 34-36 depend, directly or indirectly, from claim 21, they incorporate all the terms and limitations of claim 21 in addition to other limitations, which

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 22-31 and 34-36 be withdrawn and that they be allowed.

New claim 37 recites, in a relevant portion, "[a]n integrated display system . . . wherein a first image from the first display at least partially passes through the mirror face towards the user, and a second image from the second display is at least partially reflected by the mirror face towards the user, so as to present a composite image comprising the first image and the second image to the user, wherein the composite image is larger than either one of the first and second images, and wherein the first display area and the second display area are oriented so as to make the composite image appear to be on an angled display. (Emphasis Added)

Since none of the cited references, either individually or together in any combination, teaches or suggests such an integrated display system, applicants request that claim 37 be allowed. Since claims 38 and 39 depend from claim 37, they incorporate all the terms and limitations of claim 37 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that claims 38 and 39 be allowed as well.

New claim 40 recites, in a relevant portion, "[a] method . . . projecting a first image towards a user through the transmissive/reflective mirror; and applying a second image at the transmissive/ reflective mirror for the second image to be reflected towards the user, wherein the images appear as a composite image, which is larger than either one of the first

Appln No. 09/880,516

Amdt date March 29, 2004

Reply to Office action of December 17, 2003

and second images, to the user, and wherein the first and second images are applied such that the first and second images in the composite image appear to be at an angle with respect to one another." (Emphasis Added)

Since none of the cited references, either individually or together in any combination, teaches or suggests such a method, applicants request that claim 40 be allowed.

In view of the foregoing amendments and remarks, applicants respectfully request an early issuance of a patent with claims 1-11, 14-18, 20-31 and 34-40. If there are any issues that can be addressed over the telephone, the Examiner is invited to call applicants' attorney at the number listed below.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By Jun-Young E. Jeon
Jun-Young E. Jeon
Reg. No. 43,693
626/795-9900

JEJ/mee

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